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A cross-cultural qualitative examination of social-networking sites and academic performance

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Abstract

Social-networking site (SNS) use, specifically Facebook®, has remained a controversial subject for many educators and media. Recent studies discuss the negative and positive impacts of SNSs on students' academic performance. This qualitative study examines the impact of SNSs on students' academic performance via open-ended survey responses in the United States (US) and Europe. Responses were examined using the Qualitative Content Analysis (QCA). Findings from this study indicate the differences in perceptions between students in the US and Europe. Overall, common themes indicated that the majority of students claimed they feel SNSs do not impact their grades. Many European students (32.0%) indicated that they use SNSs for their school work, whereas 31.7% of US students mentioned being a responsible student.

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Keywords: Social Networking Sites (SNSs); Academic Performance; Qualitative Content Analysis.

1. Introduction

Social networking is a large part of the global online experience, with cross-cultural differences becoming important to examine (comScore, 2012; Karpinski, Kirschner, Ozer, Mellott, & Ochwo, 2013). The purpose of this study was to understand students' perceptions of the impact of social-networking sites (SNSs) on academic performance in the United States (US) and Europe. Since there are cultural differences between the US and Europe (Hall, 2000), similarities and differences in students' perceptions of SNS-use need to be investigated. As the world prepares for a future that increasingly uses SNSs, it is becoming increasingly important to go beyond specific uses and users and to attempt to understand cross-cultural perceptions of and differences in how these technological advances may or may not impact performance in general and - here in this study - academic

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performance specifically. The main research question study in this research is: (1) How does US and European students' perceptions of SNS use in relation to academic performance compare?

2. Literature Review

Research has shown that SNS use comprises the majority of time spent on the Internet since 2008. The US digital year report illustrates that among the top four online content areas according to the individuals' share of overall time spent online, portals (e.g., Yahoo, MSN, etc.) are the largest with a 20.2% share of time spent. Social networking is the next largest with 14.4%, entertainment is third (12.6%), and e-mail or communication with other channels is fourth (11%; comScore, 2012).

SNSs (e.g., Facebook®, Tumblr, Pinterest, Twitter, LinkedIn, Yelp, Yammer, etc.) have attracted millions of users around the world, who have incorporated these sites in their daily lives and routines (Boyd & Ellison, 2007; comScore, 2013). At the moment of writing, Facebook® is the leading SNS with more than 900 million users (comScore, 2013). More than one third of the world's population uses the Internet, and 34.3% of the Internet users and 12.1 % of the world population have Facebook® accounts (InternetWorldStats.com, 2012). North America and Europe have the highest numbers of Facebook® users compared to other geographic regions in the world. The age distribution among Facebook® users in the US roughly shows that 23.4% are 18-24 and 23.9% are 25-34 (checkfacebook.com, 2013), with a similar distribution in Europe. Finally, almost one-fourth of all Facebook® users are college students.

Recently, researchers have started to examine the cross-cultural differences not only in general Internet use, but more specifically, SNS behavior (Chapman & Lahav, 2008; Kim, Sohn, & Choi, 2011; Vasalou, Joinson, & Courvoisier, 2010). Vasalou and colleagues (2010) identified cross-cultural differences in SNS use between the US, United Kingdom (UK), Italy, France, and Greece. According to them, culture impacts the users' motivations for using SNSs, their instrumental uses, and the time they spend on the sites. Compared to the US, the time spent on Facebook® was higher in the UK, and lower in France. Chapman and Lahav (2008) examined cross-cultural differences in the usage patterns of SNSs (i.e., the users' goals, typical pattern of self-expression, and common interaction behaviors) with observation and ethnographic interviews in multiple cultures (i.e., US, France, China, and South Korea). The results showed that respondents from US mentioned using SNSs for sharing personal information (e.g., photos, videos, music); whereas French respondents stated using SNSs to discuss interests and hobbies, and not for personal issues or "sensitive information" (Chapman & Lahav, 2008, p.3126). Kim and colleagues (2011) found that the patterns of SNS use were remarkably different for US and Korean students (i.e., US students' social connections were almost five times larger on average than their Korean counterparts). Finally, Karpinski and colleagues (2013) examined differences between US and European students' SNS use and academic performance (i.e., Grade Point Average [GPA]) and found that the negative relationship between SNS use and GPA, and the relationship was moderated by multitasking only in the US sample. Thus, cross-cultural differences, such as in the studies above, are important to consider in investigating the relationship between SNS use and academic performance.

The impact of SNSs on academic performance has become a hotly debated topic, mostly based upon research employing quantitative methods (i.e., surveys). Recent studies illustrate a big debate showing a negative relationship (Bjerregaard, 2010; Junco, 2012; Kirschner & Karpinski, 2010; Rouis, Limayem & Salehi-Sangari, 2011; Stollak, Vandenberg, Burklund, & Weiss, 2011) or no relationship (Ahmed & Qazi, 2011; Hargittai & Hsieh, 2010; Lubis, Ridzuan, Ishak, Othman, Mohammed, Hamid, & Izham, 2012; Pasek, More, & Hargittai, 2009) between SNS use and academic performance (i.e., GPA). This debate would be enriched by gaining an, understanding of the role that students' perceptions may play in the hypothesized relationship or lack thereof. The current study investigates how college students perceive the impact of SNSs and how those impacts differ between two world regions: US and Europe. Since the quantitative findings of the studies showed that social-networking behaviors may vary from culture to culture, it is also important to understand the impact through a

qualitative lens. This qualitative study, with a large group of students from the US and Europe, specifically seeks to understand students' perceptions about the impact of SNSs on their academic performance.

3. Methodology

Data ($N = 857$) were collected online from a survey-hosting website from multiple universities in the US and across Europe. Data collection occurred primarily through e-mail invitation to complete a web-based survey. Recruitment e-mails were sent directly to faculty members and instructors at various universities, which included a link to the survey that was to be forwarded to the students. The survey consisted of both closed and open-ended questions, but for the purposes of the current study, only open-ended questions were used.

Open-response items were analyzed using Qualitative Content Analysis (QCA), which is defined as systematic text analysis used to examine meaningful and symbolic content of qualitative data (Mayring, 2000). Data for the open-response item (e.g., "Do you think that using your SNS(s) has had an impact [i.e., positive and/or negative] on your academic performance? Explain.") were reduced to major themes and patterns. Students were also asked to discuss whether they thought that SNSs have no impact (e.g., "If no, why not? Please explain."). First, overall qualitative responses were read by each researcher and initial major themes were entered into a spreadsheet (i.e., each column representing a distinct theme). Then, each student response was coded depending on the themes that emerged from subgroups. For the purposes of this study, student open-ended responses are discussed in detail with the percentages and frequencies for US and European subgroups.

Conclusions were drawn based on the themes and patterns. Authors conducted the above process separately, and compared their individual results. Major themes identified by the authors were interpreted further and reported. The use of multiple coders engaged in the analysis process added to the reliability and validity of the results and conclusions. An inter-rater reliability analysis using the Kappa statistic was performed to determine consistency among raters.

4. Data sources and evidence

The data included 451 (52.6%) participants from US universities across a number of states (e.g., Georgia, New York, Ohio, etc.) with the remaining participants from Europe ($n = 406$; 47.4%; e.g., United Kingdom, Germany, Netherlands, etc.; Students from Turkey were included in the European subgroup; see Table 1). Seven-hundred fifteen responded to the qualitative questions and this was approximately 83.4% of the sample. The US subgroup missed 81 responses (18%) and the European 61 (15%).

Two independent reviewers examined the data with substantial agreement (Kappa = .73, $p < .001$; Landis & Koch, 1977). First, all qualitative responses were read collectively (i.e., regardless of group – US and Europe). The researchers used the constant comparison method (Glaser & Strauss, 1967) to identify, reduce, and validate the themes. After repeatedly reading the overall responses, eleven common themes emerged and were given a code (1-11; see table 2). Following this, responses were analyzed separately (i.e., US and Europe), and then coded for the themes mentioned in the response (i.e., if the student gave multiple responses [e.g., mentioned three different themes in a response], those themes were coded in three different columns; Jann, 2004). In the next step, the themes were grouped into three major categories. The results reflect the emergence of themes explaining how the respondents discussed and reasoned about the perceived impact (i.e., negative impact, positive impact, no impact) of SNSs on their academic performance. The categories included: positive impact of SNSs (i.e., Themes #1, #2, and #3), negative impact of SNSs (i.e., Themes #4, #5, #6, and #7), and no impact of SNSs (i.e., Themes #8, #9, #10, and #11) on their academic performance.

Table 1. Demographic information for European and United States students ($N = 857$)

Demographic Information	United States ($n = 451$)	European ($n = 406$)
Age	25.6 (7.05)	22.2 (3.37)
Sex		
Male	99 (22)	154 (37.9)
Female	352 (78)	252 (62.1)
Ethnicity		
White (Non-Hispanic)	359 (79.6)	400 (98.5)
Other	92 (20.4)	6 (1.5)
Student Status		
Undergraduate	234 (51.9)	323 (79.6)
First Year	12 (5.1)	77 (23.8)
Second Year	42 (17.9)	104 (32.2)
Third Year	67 (28.6)	85 (26.3)
Fourth (or More) Year	113 (48.3)	57 (17.6)
Graduate	217 (48.1)	83 (20.4)
Masters	131 (60.4)	75 (90.4)
Doctoral	65 (30.0)	7 (8.4)
Professional	21 (9.7)	1 (1.2)
Major		
Social Science/Humanities	367 (81.4)	130 (32)
Natural Science/Business	78 (17.3)	257 (63.3)
Missing	6 (1.3)	19 (4.7)

Note. Standard Deviations appear in parentheses next to Means for Age. Percentages of *n* appear in parentheses next to frequencies for all other variables.

As a result of the QCA, the following themes emerged: (1) SNSs are a tool for connection/communication, (2) SNSs are used for school work, (3) SNSs are good for relaxation/study break, (4) SNSs are time consuming, (5) SNSs are a distraction, (6) SNSs are related to academic procrastination, (7) SNSs decrease academic performance, (8) No multitasking while studying, (9) Being a responsible student, (10) Being good at multitasking, and (11) No relationship between SNS use and academic achievement. The themes that emerged in each group (i.e., US or European) are discussed.

The number of responses and percentages for each group are presented in Table 2. *n*, in Table 2, represents the total number of respondents mentioning the corresponding theme. The percentage of responses indicates the total number of themes mentioned in students' responses over the total sample (i.e., separately for US and European subgroups). For instance, 72 out of 451 students in the US subgroup mentioned SNSs being time consuming, and that means that 16.0% of US students mentioned this. It should also be noted that student responses that included more than one theme were counted separately (i.e., in more than one thematic category).

Table 2. Qualitative Content Analysis ($N = 857$)

Response Themes	United States ($n = 451$)		European ($n = 406$)	
	n	% of Responses	*n*	% of Responses
(1) SNSs are a tool for connection/communication	38	8.4%	26	6.4%
(2) SNSs are used for school work	51	11.3%	130	32.0%
(3) SNSs are good for relaxation/study break	43	9.5%	20	4.9%
(4) SNSs are time consuming	72	16.0%	60	14.8%
(5) SNSs are a distraction	95	21.1%	52	12.8%
(6) SNSs are related to academic procrastination	69	15.3%	37	9.1%
(7) SNSs decrease academic performance	22	4.9%	33	8.1%
(8) No multitasking while studying	64	14.2%	36	8.9%
(9) Being a responsible student	143	31.7%	73	18.0%
(10) Being good at multitasking	12	2.7%	8	2.0%
(11) No relationship between SNSs and academic achievement	51	11.3%	53	13.1%
No response to question (i.e., missing)	81	18.0%	61	15.0%

5. Results

In the overall data set ($N = 857$), which is not depicted in Table 2, 301 students (35.1%) mentioned that SNSs had neither a positive nor negative impact on their academic performance (i.e., Themes #8, #9, #10 and #11). One hundred seventy-four students mentioned the negative impacts (20.3%) and 134 students mentioned SNSs had positive impacts (15.6%). Also, 106 students stated that SNSs had both negative and positive impacts (16.6%), while 142 students did not answer the open-ended question (16.6%). The responses for the two subgroups are discussed in the following section.

5.1. United States (US) subgroup

The QCA in the US subgroup ($n = 451$), in general, showed that 37.9% of US students ($n = 171$) mentioned SNSs have neither a positive nor negative impact on their academic performance. Additionally, 23.9% mentioned SNSs having a negative impact ($n = 108$), 9.8% mentioned SNSs as having a positive impact ($n = 44$), and 10.4% mentioned both positive and negative impacts ($n = 47$) in their responses.

The most common response regarding positive impact was Theme #2 (i.e., SNSs are used for school work) cited by 11.3% of the respondents. The most common reason why students perceive negative impacts of SNSs was Theme #5 (i.e., SNSs are a distraction) with 21.1% of the students using either the word “distractor” or “distraction” in their responses. Theme #4 (i.e., the using SNSs is time consuming) and Theme #6 (i.e., that SNSs are related to academic procrastination) were also cited by 16.0% and 15.3% of the respondents. Only 4.9% of the respondents specifically included that SNSs decreased their academic performance (i.e., $n = 22$; Theme #7).

Besides negative and positive impacts, students also mentioned that SNSs have no impact. Overall, the most commonly cited theme was being a responsible student (i.e., Theme #9; 31.7%). Sixty-four students cited Theme #8 (i.e., that they did not multitask with SNSs while studying). Around 11.3% of the respondents were of the opinion that there is no relation between SNSs and studying (i.e., Theme #11). A small percentage of students mentioned being good at multitasking, and they think that using SNSs does not impact their academic performance (i.e., Theme #10). Some of the sample responses for the themes were given in Table 3.

Table 3. Sample United States students' responses for each theme

Themes	Responses
Theme #1	*"I feel like I can keep up with what my friends back home are doing and I know when important things are coming up such as birthdays and social events."*
Theme #2	*"It has allowed me to chat with other students in classes if I'm having a difficult time with an assignment, or even provide a short break from what I'm doing. It has also allowed me to use peer-editing. Although this is quite viable through e-mail, I don't know everyone's e-mail, but I'm typically their Facebook® friend."*
Theme #3	*"I believe that it has been positive. I do not use SNS(s) for academics. I use SNS(s) for recreation in my personal time and it makes me happy. As it improves my mood, it makes me feel better about myself and my academics."*
Theme #4	*"I believe that it often takes some time away from studying and creates priorities in my mind that are not really priorities, such as when a certain person has or has not sent me a message."*
Theme #5	*"I don't study nearly as much. I'm constantly distracted by SNSs and would rather be on them then study."*
Theme #6	*"I believe over time social-networking sites have had a small negative impact on my studies simply because I tend to procrastinate by visiting them."*
Theme #7	*"My grades are not good as they could be. I spend much time on Facebook®."*
Theme #8	*"I don't let Facebook® affect my studying time. I'll check it before I begin any homework and then sign out until I'm finished."*
Theme #9	*"I feel I am smart enough to know when to stop messing around with Facebook® to get my work done rather than wasting away the time."*
Theme #10	*"Because I know how to multitask while trying to get an assignment done, so I never let a social network have more time over my homework."*
Theme #11	*"I don't think that it changes the caliber of the work that I do. I'm naturally a procrastinator so if social networking sites did not exist, I'd find another way."*

5.2. European subgroup

The QCA in the European subgroup (n = 406) showed that 32.0% of the students (n = 130) mentioned that they did not perceive SNS use as having either a positive or negative impact on their academic performance, whereas 16.3% discussed negative (n = 66), 22.2% discussed positive (n = 90), and 14.5% discussed both positive and negative impacts (n = 61).

The most common response indicating positive impacts of SNSs was Theme #2 (i.e., SNSs are used for school work). It was mentioned by almost one-third of European respondents (n = 130). The most common reason why students perceive negative impacts of SNSs was Theme #4 (i.e., time consuming), and 14.8% of the students stated the amount of time they spent on SNSs was problematic. Few number of respondents cited Theme #5 (i.e., SNSs are a distraction; 12.8%) and Theme #6 (i.e., academic procrastination; 9.1%). Also, 33 students (8.1%) specifically mentioned SNSs decreasing their academic performance (i.e., Theme #7).

Most of the students cited that SNSs do not impact their academic performance. Overall, the most commonly cited theme was being a responsible student (i.e., Theme #9; 18.0%). Sixty-one students defended that there is no relationship between SNSs and studying (i.e., Theme #11). In total, thirty-six students mentioned no multitasking while studying (i.e., Theme #8). A few students touched on being good at multitasking (i.e., Theme #10). Some of the sample responses for the themes are given in Table 4.

Table 4. Sample European Students' responses for each theme

Themes	Responses
Theme #1	*"I get information about some special thing if my friends share it on their wall, it is positive impact."*
Theme #2	*"It has made getting answers to questions I have easier and faster. For example, if I have a quick translation question or need materials for one of my classes, I can post a status update with my question and I usually quickly get a lot of helpful answers."*
Theme #3	*"It is relaxing and it keeps me behind the computer. It's more easy to get back to study compared to going out to relax."*
Theme #4	*"It is negative because you are always partly with your attention somewhere else. You're always multitasking. It costs a lot of time. Sometimes I think that time can be better spent."*
Theme #5	*"I think it has a negative impact, because it sometimes distracts me from what I'm doing and sometimes I stay up late reading Facebook® messages which make me tired and less focused the next day."*
Theme #6	*"Facebook® has had a negative impact of my studies. It's the easiest way to procrastinate."*
Theme #7	*"SNS is an addiction like alcohol. It feels good but also harms you. Takes a huge part of your daily life and decreases your performance."*
Theme #8	*"I have two computers. When I am studying, I use the one without Internet. Also, I like to check Facebook® daily, but I don't spend that much time on it."*
Theme #9	*"Despite my use of social media, I'm still very concentrated when I'm studying. I know how to combine these things in a good way."*
Theme #10	*"I think that I use it merely in my free time and when I am studying it does not disturb me. It is turned on, but I do not look at it whole the time. I just look once."*
Theme #11	*"Without SNS, I would spend my time doing other non-academic things."*

6. Discussion and Conclusion

Most of the US and European students mentioned that SNSs have neither a positive nor a negative impact on their academic performance. One difference between the two subgroups occurred when they discussed the impacts (i.e., positive and/or negative) of SNSs. A higher number of European students think that SNSs have a positive impact on their academic performance. European students stated that they are using SNSs for school work and are claiming to be a responsible student. Karpinski and colleagues (2013) reported that European students had higher GPAs even when they used SNSs, but more importantly that they used SNSs in a less disruptive way. The patterns that they mention for school work included sending messages to their classmates, easily connecting with their friends, and communicating for school/group projects. Besides those, almost 13% of the European students specifically stated that there is no relationship between SNSs and academic performance. Additionally, compared to US students, European students did not discuss the negative impacts as much (e.g., SNSs are time consuming, a distraction, related to academic procrastination), and 8.9% mentioned specifically the negative impacts of SNSs on their grades.

In comparison, most of the US students discussed the negative impacts. They think that SNS use is a distraction and time consuming, and that it is related to academic procrastination. One-third of the US students claimed being responsible in using SNSs and having good time management skills. Compared to European students, US students are more vocal of the negative impacts of excessive SNS use, but they defend being a responsible student and good at multitasking while studying.

Recent literature has been focusing on cross-cultural differences, investigating the patterns of SNS use and attitudes of users toward them. This study adds the qualitative student perspective to the existing debate about the impact and use of SNSs in education. In the most recent cross-cultural quantitative examination, it was found that

different styles of SNS use (i.e., disruptive and non-disruptive in US and European university students, respectively) differentially impacts academic performance (Karpinski et al., 2013). The current qualitative investigation identifies that these differences may also be a product of perception. If US students perceive SNSs as a distraction, yet claim to be responsible students, they may be unaware of the detrimental impact of using SNSs while studying or doing other academic-related work (i.e., they think that they can successfully multitask). That is, there is a disconnect between the quantitative and qualitative findings, suggesting that US student perceptions are not aligned with the reality of their behavior. This is different from the quantitative and qualitative findings for European students, which show that they use SNSs in a non-disruptive way and this supports their perceptions that they use SNSs for schoolwork and also the perception of being a responsible student. This information is important to consider as social media are becoming increasingly commonplace in the classroom and are being used in educational in general. University administrators and policy makers in the US and Europe may need to consider the different perceptions of their students and how their perceptions might influence the disruptive or non-disruptive use of SNSs related to schoolwork and academic performance.

Future studies should further examine if there is a relationship between SNS use and academic performance, and if one exists, the multiple variables contributing to the relationship. Qualitative research, as in the current study, can add to the exploration of these multiple variables, and assist in explaining why differences in SNS use might exist between various groups.

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